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PAGE

Netherlands Demands Five German Areas 3
Trade-Encouraging Free Ports on Increase 5
National Park Series: No. 9. Glacier 7
Irish Linen Reappears in Time for Christmas 9
Trade Routes to Tropical Sumatra Again Open 11

MAYNARD OWEN WILLIAMS

FROM THE PADDLE HANG THE SEAT OF HIS DUGOUT CANOE AND A BASKET TO HOLD THE FISH THE NET WILL CATCH: A LAKE TOBA, SUMATRA, BATAK FISHERMAN HEADS FOR THE WATER **(page 11)**

Netherlands Demands Five German Areas

THE Netherlands government has formally asked the Big Four to "rectify" the Netherlands-Germany boundary by turning over to the Dutch about 700 square miles of German borderlands. The plan involves straightening out the kinks in four small areas where German territory juts into the lowland country. The land gained would be a token payment from Germany for wartime destruction.

The plan would change a border that has remained stationary since the Congress of Vienna, in 1815, and which has stayed virtually the same since the 1648 Treaty of Westphalia. About 120,000 farmers live in the areas in question. No large towns are included.

Would Shorten Boundary by 90 Miles

The largest and northernmost of the four regions includes Germany's Bentheim bulge, on the map a noticeable border deviation which extends west to within 30 miles of the Zuyder Zee (IJssel Meer). A boundary "correction" there would cut off the bulge plus a narrow strip north of it reaching to the sea, and give it all to the Netherlands.

To the south lie the three other salients—one east of Zutphen, one along the Rhine River east of Nijmegen (illustration, page 4), and a third east of Sittard in the panhandle extending south toward Aachen. Ironing out these kinks would shorten the frontier from 325 miles to 235 miles.

The Dutch plan also calls for acquisition of the island of Borkum, westernmost of the East Frisian Islands, a chain of sand spits off the North Sea coast. Borkum, once a popular vacation spot, is six miles long and up to four miles wide. Its transfer would move the frontier 10 miles east and give the Netherlands control of the Ems-Dollart estuary on which stands Germany's westernmost seaport—Emden.

Situated at the mouth of the border-hugging Ems River, Emden was used during the war as a naval base, mostly by U-boats. Its peacetime industrial and commercial growth has been due to the Dortmund-Ems Canal, which links it with the coal and iron of the Ruhr. This all-German waterway diverted trade from Rotterdam and other lowland cities which formerly had handled nearly all the water-borne exports of the Ruhr. Embodied in the Dutch plan are provisions to prevent further German draining of the "natural" trade of Netherlands cities.

World War II Battles Fought in Border Area

This trade normally follows the Rhine and the various branches it splits into shortly after crossing the border. The strong river current seems to have pulled the boundary along with it, making a deep westward salient into Netherlands territory between Kleve (Cleves) and Nijmegen. Slicing off the tip of that bulge would give the Dutch control of a few more miles of the Rhine and provide better access between the two provinces of Limburg and Gelderland.

In this strategic river-basin area, history was made both early and late in World War II—in 1940 when the Germans marched triumphantly

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EDWIN L. WISHERD

TO SAN JUAN, CAPITAL OF PUERTO RICO, COME SHIPS AND PLANES FROM FAR AND NEAR

A training ship from distant Finland frames the harbor. The jack at the bow flies only when the vessel is at anchor. Its stylized design is of a lion brandishing a sword and trampling on a Russian scimitar. The three-masted schooner hails from the neighboring Dominican Republic. San Juan, largest United States-owned port in the Caribbean area, has applied for status as a free port (page 5).

Trade-Encouraging Free Ports on Increase

WHEN the Port of New Orleans, in 1947, opens its foreign trade zone, as recently authorized by the Department of Commerce, it will be only the second "free port" area in the United States. Foreign Trade Zone No. 1 has been in operation at the Port of New York since early 1937.

The purpose of the foreign trade zone is to attract commerce from abroad that would be deterred by import tariffs. Forty or more free port areas in Europe and Asia set the pattern for the United States in opening the New York Port zone at Stapleton, on Staten Island near the entrance to New York Harbor.

No Duty Paid unless Goods Enter United States Proper

As established in this country by law in 1934, the foreign trade zone is a segregated area, under federal supervision, in or adjacent to a port of entry. There, goods arriving from abroad may be immediately transshipped, or stored indefinitely for reshipment to a foreign country without the levy of import duties.

Imports to the zone may be sorted, cleaned, otherwise "manipulated" and repackaged for shipment. They may be combined with other goods of foreign or domestic manufacture. In the end, they may enter the United States proper, subject only to duties applying to their final form. The law forbids manufacturing and exhibiting in the zone.

Without benefit of tariff income, the zone is supported by its charges for storage and handling services. Within the zone, for example, Swiss watch movements may be fixed into American cases, African diamonds may be expertly graded, South American nuts may be shelled and sorted, and spirits and perfumes may be transferred from hogheads to bottles. Such operations are accepted as manipulations, not manufacturing.

Zone No. 1 teemed with trade after its opening. In 1941, it recorded 232 kinds of imports valued at $89,000,000 from 70 countries. The war forced its removal to smaller piers in the Hudson River, and cut its volume to one-third of the 1941 peak. The zone is now partially reestablished at Stapleton, where 92 acres of space are soon to be available.

Free Port Idea Dates from Hanseatic Cities

San Francisco, California, and San Juan, Puerto Rico (illustration, page 2), are among ports which have applied for foreign trade zone permits. Free zones within large airports are now advocated; and provision for exhibit space is proposed as a means of hastening contacts between buyers and sellers. In Great Britain, a free port for Cardiff, Wales, is being considered as a means of replacing dwindling trade due to decreasing exports of coal.

The free port idea dates from the time of the Hanseatic League, a group of thriving north European cities, which reached its peak of influence in the 14th century. Genoa seems to have been the first to set up a segregated free port area within its famous harbor, about 1876.

Germany built no less than 11 sea and river free port areas to economic importance. Outstanding were Hamburg and Bremen, where even

into the Netherlands, and in 1944 when the Allies invaded Germany.

The topography of the border region varies. It includes sandy moors and heathland. Coastal mud flats and dunes; fertile dike-protected farms and reclaimed marshes; and relatively high pastoral and crop lands appear in that order as one goes inland.

Normally the land is devoted to the raising of sheep and cattle, with an attendant dairy industry. Such crops as wheat, rye, oats, and sugar beets are grown.

The people share a similar background in language, customs, and religion on both sides of the line. Settlement is comparatively sparse.

NOTE: The five border areas which the Netherlands wishes to annex may be found on the National Geographic Society's Map of Germany and Its Approaches. A price list of maps may be obtained from the Society's headquarters, Washington 6, D. C.

For additional information, see "Holland Rises from War and Water," in the *National Geographic Magazine* for February, 1946; "Low Countries Await Liberation," August, 1944*; "Behind Netherlands Sea Ramparts," February, 1940*; and "A Vacation in Holland," September, 1929*. (*Issues marked with an asterisk are included on a special list of Magazines available to teachers in packets of ten for $1.00.*)

See also, in the GEOGRAPHIC SCHOOL BULLETINS, February 11, 1946, "Problem Areas of Europe: 6. The Rhineland"; "Kiel Canal and Rhine River Long Served International Trade," October 8, 1945; and "The Netherlands a Water-Ruled Vestibule to Germany," October 9, 1944.

BRITISH OFFICIAL

A STEP FROM GERMANY'S BORDER STANDS NIJMEGEN BRIDGE, VITAL DUTCH NORTH-SOUTH LINK

Some of the war's fiercest fighting was for the possession of this span over the Waal, Netherlands continuation of the Rhine. In September, 1944, American and British troops captured it intact.

Glacier, Where the Ice Age Still Lives

GLACIER National Park is so big that it has no single center of attraction. Half a dozen widely separated regions, some of them far from the park's highways, beckon the visitor. One thousand miles of trails lead to the areas the roads miss. Consequently, Glacier is the foremost trail park in the country, and one of the most unspoiled primitive regions.

Situated in northwest Montana at the Canadian border, rugged Glacier is reached by airplane, by railroad, and by automobile over paved highways. Just outside the park boundary, for two-thirds of its length, runs a road from which spurs enter the park at its most scenic points. The Going-to-the-Sun Highway crosses the park at its Logan Pass midsection, making a quick connection between St. Mary Lake on the east and Lake McDonald on the west.

One of the Few United States Glacier Areas

Glacier's mountain scenery is unlike that in any other national park. In some bygone age its mountains were literally pushed out over the Great Plains. In escarpmentlike suddenness, their forested heights rise from the treeless plain. The abrupt Front Range is backed by Livingston Range. The Continental Divide swings from one to the other in the north section of the park.

Glaciers, of which there are 60, gave the park its name. They are among the few in the United States that are easily reached. Slowly melting away, they were once as big as Alaska's "rivers of ice." Now these remnants of the ice age nestle in amphitheaterlike cirques, or mountainside hollows. Though small, the glaciers possess all the characteristics of major ice bodies. Tiny Clements Glacier, near Logan Pass, is called the museum glacier because it demonstrates all glacial features.

The lakes, whose waters run the gamut of blues from turquoise to cobalt, are the gift of the glaciers. Nearly every valley in the park is crowned by a glacier, carpeted with one or more lakes, and drained by a singing, fish-filled stream. The 200 lakes range in size from Lake McDonald, ten miles long and one mile wide, to tiny polka dots of blue. Boats ply some of the larger lakes.

Many and Varied Summer Accommodations

The lure of a mountain lake is recognized by the placement of Glacier's accommodations; most are on water. The park's hotels and chalets are built after the Swiss style. Many chalets and permanent tent camps are reached only by hikers and horseback riders. They are placed along trails at intervals of 10 to 18 miles—within hiking distance of each other or the hotels. In addition, there are several automobile camping areas. The park season is from June 15 to September 15.

Starting at the southeast corner, the following centers are found on the east side: Glacier Park Hotel and cabins (just outside park boundaries), Two Medicine Chalets, Cut Bank Chalet, Red Eagle Tent Camp, Going-to-the-Sun Chalets, East Glacier cabins, and Many Glacier Hotel

foundries and shipyards operated in big customs-free zones. Copenhagen, Denmark (illustration below), likewise provided factories in its scattered free port sections.

Danzig, on the Baltic Sea, and Trieste and Fiume, on the Adriatic, held positions favorable to free port trade in goods destined for inland regions of Europe. Trieste's past record as a warehouse of international finance as well as trade is advanced in support of its ability to be self-sustaining as a postwar international zone.

Some prewar free ports (Vienna, Austria, and Basel and Lausanne, Switzerland) were inland, but on navigable water. Colonial ports free of tariffs, with certain exceptions, included Gibraltar, Aden, Hong Kong, Singapore, and Macao. In the new world, ports in Mexico, Cuba, Colombia, and Venezuela swelled the list.

NOTE: Free ports and their position on shipping routes may be located on the Society's Map of the World.

DEUTSCHER AERO LLOYD

THIS FREE PORT AREA OF COPENHAGEN'S VAST HARBOR IS A COMMUNITY IN ITSELF

When Germany's Kiel Canal threatened to take trade from the Danish city, the Free Port was established. As it grew, it built its own power plant, banks, and trading marts, and had its own police. Docks, cranes, elevators, and warehouses handled, duty free, goods from the world's ships.

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Irish Linen Reappears in Time for Christmas

IRISH linen—durable, glossy, and adaptable—is again appearing in American shops as the mills around Belfast hum with peacetime production. Exports of linen from Northern Ireland in the first eight months of 1946 exceeded $20,000,000 in value.

Little household linen was made during the war. The mills produced cloth for uniforms, tent duck, sailcloth, and canvas floats for flyers, as well as linen for airplane construction. But in time for the second postwar Christmas, tablecloths, napkins, towels, and handkerchiefs bearing the once familiar little stickers with the note "Pure Irish Linen," are again taking their place among holiday wares—prominently, though not yet profusely displayed.

Loom and Labor Shortage Slows Linen Comeback

During World War I, Northern Ireland provided almost 100,000,000 yards of airplane linen. Much of this came to the United States. After the war linen continued to come in large amounts. By 1925, the United States was importing annually from Ireland $18,000,000 worth of linen.

Since World War II, recovery of Ireland's linen industry has been retarded by the war's destruction of one-seventh of the looms, and by a shortage of skilled labor.

Woven from the fiber of the flax plant (illustration, page 10), linen, which normally is about twice as expensive as cotton, has several advantages over that more generally used fabric. It is nearly twice as strong. Because of its smoother surface it does not soil so easily and dries more quickly—hence its desirability as material for the lowly dish towel.

Fine Irish linen results from centuries of development. Many families in the trade have been weavers for generations. As early as 1210, Ireland's linen industry flourished, and in the 15th century Irish linen was known and prized throughout Europe.

The quality of linen has been advanced by developments outside Ireland. In 1638, the Earl of Strafford, then English viceroy in Ireland, introduced the spinning wheel from Holland to replace the centuries-old distaff and spindle. He also imported the finest flaxseed to be had in the Low Countries. The Duke of Ormonde brought over 500 Dutch families, skilled spinners and weavers.

Ireland's Wool Industry Was Sacrificed for Linen

Many expert weavers of fine damasks and cambrics were among nearly 6,000 Huguenot refugees who came to Ireland from France toward the close of the 17th century. Efficient looms imported from the Netherlands further improved the quality of Irish linen.

Ireland's wool had an indirect part in establishing Irish linen. Beginning in the reign of England's Charles II, the Irish were forbidden to export wool except to England and Wales. The purpose of this ban was to give the English woolen industry an opportunity to expand. In return, Ireland was given a virtual monopoly of the linen trade.

Linen manufacture in Ireland was long a cottage industry. It was not until 1828 that the first successful power-driven flax-spinning mill was

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and cabins. In the north and west are Crossley Lake Tent Camp, Goathaunt Camp, Fifty Mountain Tent Camp, Granite Park Chalet, Avalanche Camp, Lake McDonald Hotel, Sprague Creek Camp and Sperry Chalet.

Unspoiled Glacier is a haunt of unusual animals. Mountain sheep and goats (illustration, below) are sometimes seen in the Many Glacier region and around Two Medicine. Black bears are everywhere. Grizzly bears, moose, and elk stay in such wild, seldom penetrated areas near the Canadian border as the Belly River Valley and Goathaunt.

Near Two Medicine beaver colonies work, and in the lake swim brook and rainbow trout. At Trick Falls some of the water goes over the brink, but most of it pours out of a cave below. Near Cut Bank rears Triple Divide Peak (reached by trail). Water falling on it may flow to the Atlantic, the Pacific, or the Arctic.

Avalanche Creek, on the west side, has cut a gorge through brilliant red argillite. The water ouzel delights in flying through the mist rising from the foaming stream.

Adjoining Glacier over the border is Canada's Waterton Lakes National Park. In 1932, the two parks, keeping their individual identities, were joined together as the Waterton-Glacier International Peace Park—emblematic of peace along the two nations' 3,000-mile border.

NOTE: Glacier National Park may be located on the Society's Map of Northwestern United States and Neighboring Canadian Provinces.

See also, "Western National Parks Invite America Out of Doors," in the *National Geographic Magazine* for July, 1934; "Nature's Scenic Marvels of the West," July, 1933*; and "A Mind's-Eye Map of America," June, 1920.

T. J. HILEMAN

MONARCHS OF REMOTENESS, GLACIER'S ROCKY MOUNTAIN GOATS CHEW THEIR CUDS AND GROW THEIR BEARDS IN DIGNIFIED SOLITUDE

This warmly covered creature keeps a white coat all year; in winter it gets longer and thicker. The horns are hollow and black. A bisonlike hump makes sure-footed movements seem ungainly. Rocky Mountain goats belong to a group intermediate between true goats and antelopes.

Trade Routes to Sumatra Again Open

AMERICAN users of pepper, twine, cigars, rubber, and gasoline look again across the Pacific toward Sumatra. Netherlands troops have returned peacefully to the big tropical island that is a source of these still-scarce products, following truce agreements between Netherlands and Indonesian leaders.

Sumatra, one of the largest islands of the Netherlands Indies, has a wealth of agricultural and mineral raw materials which were prominent on United States import lists before the Japanese conquered the island and cut it off from world trade.

Popular Pepper Led in Indies Spice Trade

So far, however, these resources have been but lightly tapped. A Dutch saying, based on the early trade history and the recent development of the Netherlands Indies, has it that "the Moluccas (or Spice Islands) are the past, Java the present, and Sumatra the future."

Pepper now leads in the spice trade of the East Indies, over which nations once fought bitterly. Normally, the chief centers of production are in Sumatra and the adjacent small islands of Billiton and Bangka, and neighboring Borneo to the east.

Sumatra cloves and nutmegs, too, are spices that find a place on distant pantry shelves. But American housewives leave the islands' plentiful supply of betel nuts to the Malayans who have made a widespread habit of chewing this teeth-blackening fruit of the areca palm.

Before the war, farmers in the United States used Sumatra sisal for binder twine. Vegetable oils from the island went into margarine and soap for the American market. Tobacco from the Deli district of Sumatra commanded high prices for cigar wrappers.

Still more important in prewar trade between Sumatra and the United States was the island's output of rubber (illustration, page 12) and petroleum. American capital, along with Netherlands and British, is heavily invested in rubber plantations and oil refineries on this long, slim tropic island.

Indonesian Nationalists Are Strong in Sumatra

War severely damaged Sumatra's industries, starting with the deliberate firing of oil properties at Palembang in 1942, to prevent their use by the invading Japanese. Today, the rebuilding of the petroleum and rubber industries, together with the continued development of such raw riches as the coal, gold, and tin deposits, have an important place in the negotiations reported between Indonesian nationalist leaders and Netherlands officials.

Sumatra, considered one of the strongholds of the Indonesian nationalists, is sparsely settled. Fewer than 10,000,000 people live in an area larger than the six New England states, New York, and Pennsylvania combined. Its tribesmen (illustration, cover), especially those living in the mountains and the remote interior, were slow to accept European conquest.

This hot and humid land astride the Equator is spread with vast green

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set up in Belfast. From then on, the industry expanded rapidly.

During World War II, flax culture in Northern Ireland increased to 125,000 acres—four to six times its prewar average. In addition, flax was imported from Canada, Egypt, and New Zealand, although overseas sources of most of the industry's peacetime flax were shut off.

This year's flax imports—more than 10,000 tons—have come from Belgium, Eire, Australia, Canada, the Netherlands, and New Zealand. Stocks now on hand are reported sufficient to keep Ireland's mills running for a year, regardless of imports or the Irish crop.

NOTE: Belfast, center of Northern Ireland's linen industry, is shown on the Society's Map of the British Isles.

See also, "Mist and Sunshine of Ulster," in the *National Geographic Magazine* for November, 1935*; and "Ireland: The Rock Whence I Was Hewn," March, 1927.

BERNARD F. ROGERS, JR.

A FAMILY HARVEST TEAM BRINGS IN THE SHEAVES OF FLAX

Northwestward from Belfast, famous linen city, stretch the fertile green fields of Antrim, northernmost county of Northern Ireland where, before the war, more than 25,000 acres were set out in flax. Harvest time brings a family team to the field. Plants grow as high as 40 inches, slim, straight stalks branching only at the top. In blossom time clusters of bright blue flowers give a flax field the appearance of a sky-reflecting mountain lake. When ready to glean, the flax plant is a drab, grayish-brown. It is pulled up, roots and all, in order to preserve as long a fiber as possible. Stalks are tied in bundles and put to soak as a preliminary to separation of the fiber which, spun and woven, will be the lustrous tablecloth with which the fortunate housewife will cover her holiday dinner table.

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forests and thick, tangled jungles. Brilliantly colored tropical birds chirp and screech; monkeys chatter. Plants, with Jack-and-the-beanstalk speed, shoot up a foot or more a day. Elephants and tigers still lumber and stalk through the forest. Crocodiles, pythons, cobras, the orang-utan, and the agile gibbon haunt the dense wilderness of this westernmost of the Netherlands East Indies.

NOTE: Sumatra may be located on the Society's Map of Asia and Adjacent Areas.

For additional information, see "Our Most Versatile Vegetable Product," in the *National Geographic Magazine* for February, 1940*; "Around the World for Animals" and "Netherlands Indies: Patchwork of Peoples" (23 color photographs), June, 1938*; and "Among the Hill Tribes of Sumatra," February, 1930*.

J. BAYLOR ROBERTS

SUMATRA REGIMENTS BRAZIL'S JUNGLE TREE TO GIVE RUBBER TO THE WORLD

Rows of rubber trees (Hevea brasiliensis), their tall branches arching overhead, form aisles across Sumatra, their adopted land. Native of Brazil's jungles, the rubber tree flourishes in the humid, tropical Pacific island. Between the even rows a cover crop has been planted to discourage weeds and prevent erosion. The latex gatherer carries his cans slung from a shoulder pole called a picul stick. Diagonal bands of tape on the trees mark earlier tappings.